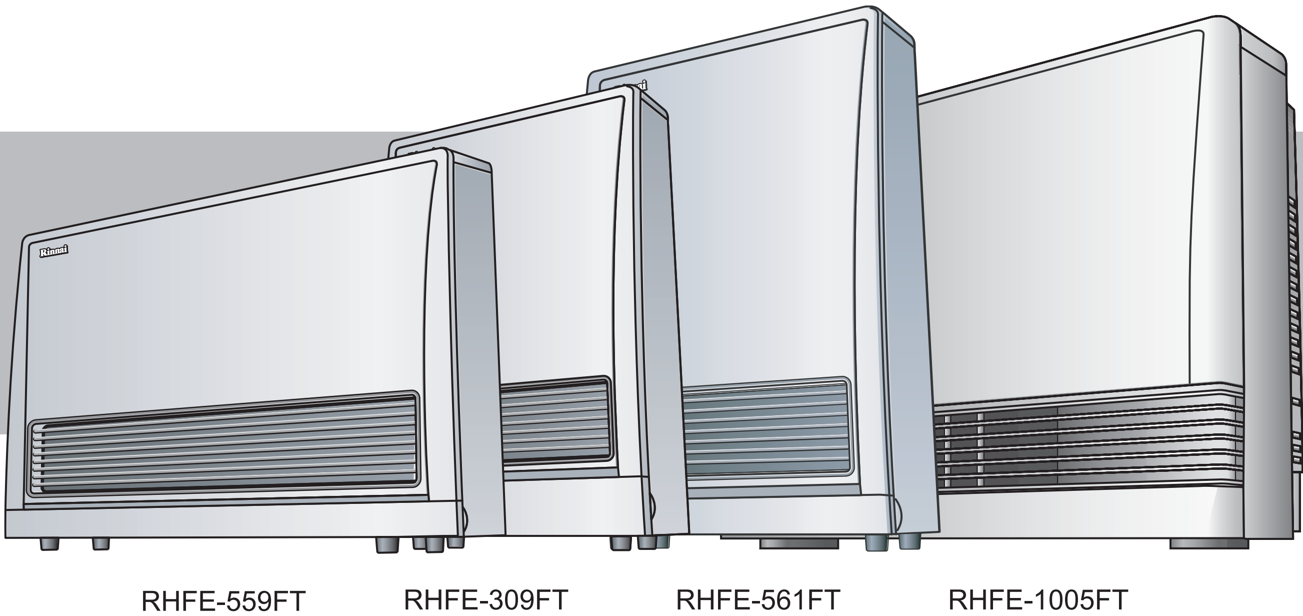
Rinnai

Operation & Installation Manual

RHFE-309FT RHFE-559FT RHFE-561FT RHFE-1005FT



NOTE The flue system installation instructions are enclosed with the flue terminal, packaged separately.

This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Current AS/NZS 5601 AS/NZS 3000
- Local Regulations and Municipal Building Codes including local OH&S requirements

This appliance must be installed, maintained and removed by an Authorised Person.

For continued safety of this appliance it must be installed and maintained in accordance with the manufacturers instructions.

N10378

The Australian Gas Association

All Rinnai gas products are A.G.A. certified.

Congratulations on the purchase of your Rinnai Energysaver space heater.
We trust you will have many years of comfort and enjoyment from your appliance.

BEFORE PROCEEDING WITH THE OPERATION OR INSTALLATION OF YOUR NEW HEATER PLEASE READ THIS MANUAL THOROUGHLY AND GAIN A FULL UNDERSTANDING OF THE REQUIREMENTS, FEATURES AND OPERATION OF YOUR NEW APPLIANCE.

OPERATION MANUAL

BEFORE YOU START

INSTALLATION REQUIREMENTS

This heater must be installed by an authorised person. The installation must conform to local regulations. The installation must also comply with the instructions supplied by Rinnai.

Service and removal must be carried out by an authorised person.

CERTIFICATION

The Rinnai Energysaver® Range has been certified by the Australian Gas Association.

The AGA Certification Number is shown on the appliance dataplate.

No parts or functions should be modified or permanently removed from the heater.

Please keep these instructions in a safe place for future reference.

FLUE INSTALLATION MANUAL

These instructions are to be used in conjunction with the Rinnai “Energysaver Space Heater Co-Axial Flue System Installation Manual” These components Installation Manual” supplied with flue kits ESDFK or ESKIT03.

UNPACKING THE APPLIANCE

Check for damage and missing parts. If the heater is damaged or missing any parts, contact your supplier for advice.

Before installing the appliance, check it is labelled for the correct gas type (see label on the rear of heater).

Refer to local gas authority for confirmation of gas type if you are in doubt.

CARTON CONTENTS / ITEM CHECKLIST

Ensure that the components listed are present before proceeding with the installation.

Check you have the following:			
1 x One of the following Rinnai Space Heaters RHFE-309FT RHFE-559FT RHFE-561FT RHFE-1005FT			
1 x Rear Cover set, comprising of left, right and top cover panels			
1 x Bolt pack containing;	Part	RHFE-309FT RHFE-559FT RHFE-561FT	RHFE-1005FT
	Plastic inlet hose clamps	2	0
	Air intake baffle ring*	1*	0
	Flue adapter	0	1
	Stainless steal sheath clamp Large	0	1
	Stainless steal sheath clamp	1	0
	Securing brackets	2	2
	8g x 32mm screws	2	2
	150mm long cable tie	1	1
	Flue lock clamp L	0	1
	Flue lock clamp S	1	1
	6g x 10mm button head screws	2	0
	6g x 8mm pan head screws	4	7

* This component is supplied with the RHFE-309FT and RHFE-559FT and is **ONLY** for use with direct flue kit \`ESDFK´ installations refer to page 27 for installation details.

SAFETY

WARNING

DO NOT MODIFY THIS APPLIANCE.

You MUST read and understand these instructions fully before operating the heater.

Failure to comply with these instructions could result in a fire or explosion, which could cause serious injury, death or property damage.

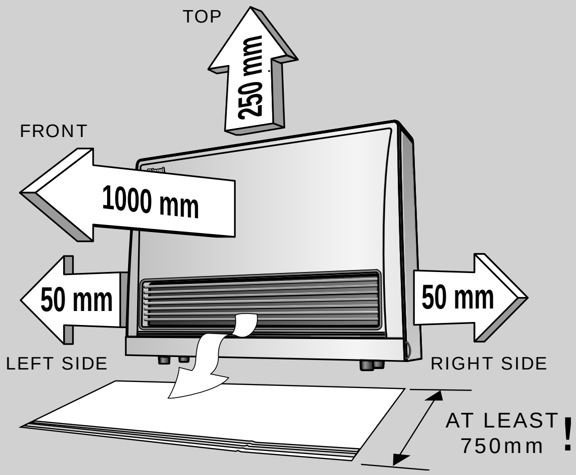
Improper installation, adjustments, service or maintenance can cause serious injury, death or property damage. Such work must be performed by an authorised person.

IMPORTANT

- **Improper installation, adjustments, service or maintenance can cause serious injury, death or property damage. Such work must be performed by an authorised person.**
- **The appliance must be installed in accordance with the local gas and electrical authority regulations.**
- **Flue terminal must always vent directly to outdoors.**
- **DO NOT extend the flue vertically or horizontally in ways other than prescribed in the appliance manufacturers' flue installation instructions.**
- **For information on gas consumption, see data plate on the appliance.**
- **This appliance must not be installed where curtains or other combustible materials could come into contact with it. In some cases curtains may need restraining.**
- **Not intended for a fireplace insert, DO NOT build into bookcases or walls etc.**
- **The clearances shown must be maintained.**
- **Heat radiating from the front of this heater may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber.**

  This effect may be amplified if the air in the room contains cooking vapours or cigarette smoke.

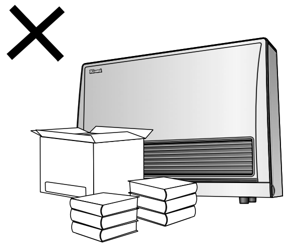
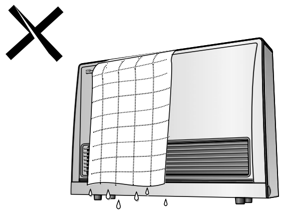
  To avoid this possibility, it is recommended that a mat or similar protective sheet be placed in front of the appliance, extending for at least 750 mm.



- **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**
- **The appliance is not intended for use by young children or infirm persons without supervision.**
- **Young Children must be supervised when in the vicinity of this heater while it is in operation.**
- **If the supply cord is damaged or requires replacing, it must be replaced by the manufacturer or the manufacturer's agent or similarly qualified person in order to avoid a hazard.**
- **The heater MUST NOT BE located immediately below a power point.**
- **DO NOT connect to an LPG Gas cylinder indoors.**
- **A dedicated 230V / 240V 50Hz earthed 10 Amp power point must be used with this appliance.**
- **DO NOT modify this appliance. Modifying from original specifications may create a dangerous situation and will void your warranty.**
- **Only the flue components specified by Rinnai must be used.**
- **Unpack the heater and check for damage. DO NOT INSTALL A DAMAGED HEATER. If the heater is damaged, contact your supplier for advice.**
- **Before installing the heater, check the label for the correct gas type (refer to the data label at the rear of the heater). Refer to local gas authority for confirmation of the gas type if you are in doubt.**

DO NOT restrict the warm air discharge by placing articles in front of the heater.

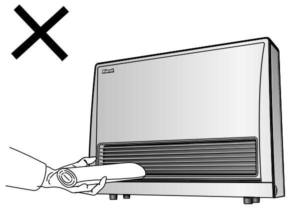
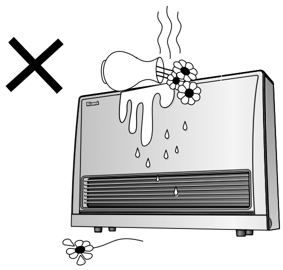
This appliance **MUST NOT** be used for any purpose other than heating.

DO NOT allow anyone to post articles through the louvres or let flammable and combustible materials to come into contact with the heater.

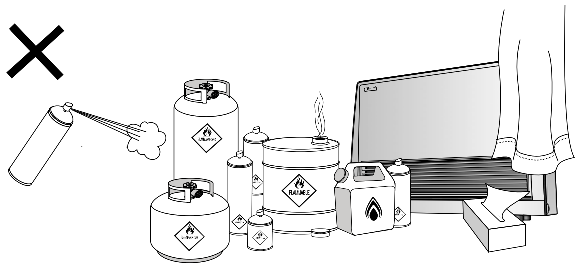
DO NOT place articles on or against this heater.

DO NOT place containers of liquid on top of the heater. Water spillage can cause extensive damage to the appliance and create an electrocution hazard.

DO NOT spray aerosols in the vicinity of this appliance whilst the heater is operating. Most aerosols contain flammable gas, which can be a fire hazard if used near the heater when it is in use.

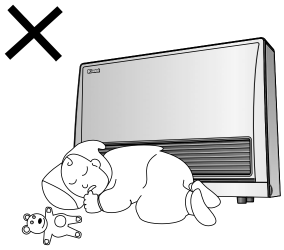
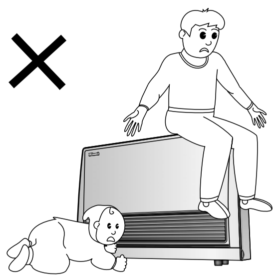
DO NOT use or store flammable materials near this appliance. Combustible materials must not be placed where the heater could ignite them.



Young children should be supervised at all times. Hand or body contact with the warm air discharge louvres must be avoided.

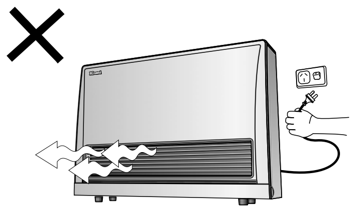
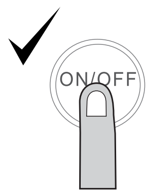
DO NOT allow young children or the infirm to sleep directly in front of the heater while in operation.

DO NOT allow anyone to sit on or lean against the appliance.

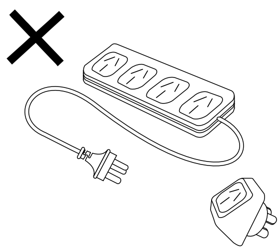
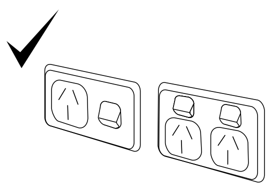
DO NOT unplug the heater while it is in operation or while the fans are still cycling.

DO Turn ‘OFF’ the heater when not in use.

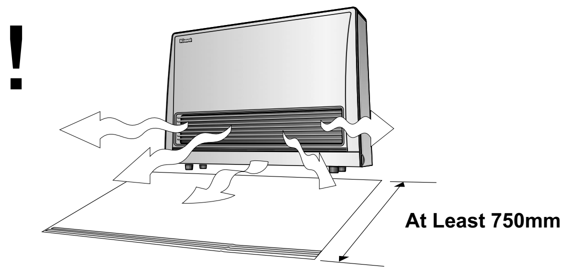



A dedicated 230V / 240V 50Hz earthed 10 Amp power point must be used with this appliance. **DO NOT** use power boards or double adaptors to operate this appliance.

The appliance **MUST NOT BE** located below a power point.

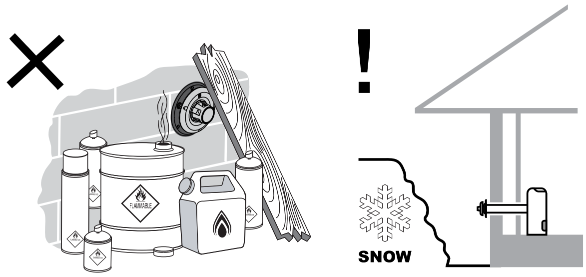



Heat emanating from the front of this appliance may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber. This effect may be amplified if the air in the room contains cooking vapours or cigarette smoke. To avoid this possibility, it is recommended that a mat be placed in front of the appliance, extending at least 750 mm in front of it.



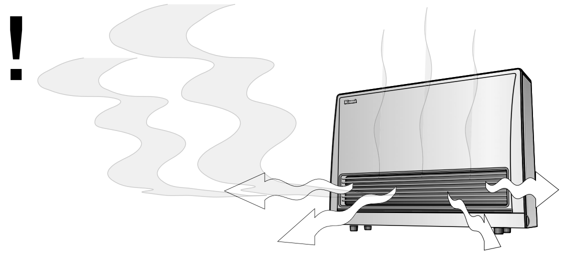
Keep flammable materials; trees, shrubs, etc. away from the flue terminal.

Snow Areas - in areas subject to heavy snowfall, keep snow clear of flue terminal at all times.

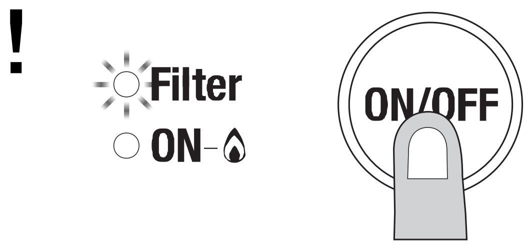


When the heater is operated for the first time or after long periods of non use a slight odour may be emitted, this is normal.

However if odours persist switch 'OFF' the appliance and contact Rinnai.



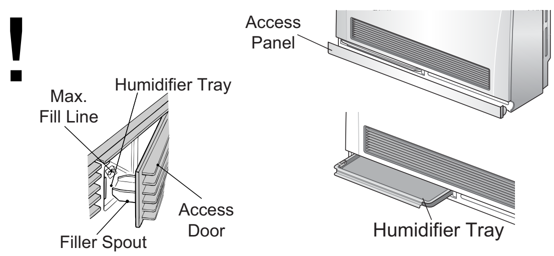
During peak operating periods the filters should be cleaned weekly, however if the "FILTER" warning indicator flashes in the control panel display, turn off the appliance immediately and clean filters before any further use.



This appliance is fitted with an integral humidifier tray that can be filled with water as required to raise the humidity level in the room for extra comfort.

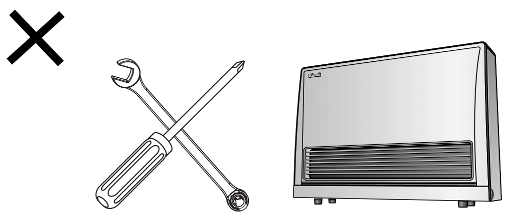
The integral humidifier tray should not be filled to more than 3/4 full, or more than the MAX Fill line when this is indicated.

Access panel / door and humidifier tray have to be fitted / closed while the heater is in use.



DO NOT modify this appliance.

This appliance **MUST NOT BE** built-in, all clearances that are shown on page 5 **MUST BE** maintained.



ABOUT YOUR ENERGY SAVER SPACE HEATER

FEATURES

Room Sealed:

Air for combustion is taken from the outside and the combustion products are exhausted to the outside. This means heater operation has no effect on the composition and quality of air in the room.

Push Button Ignition:

Only one touch of the ‘ON’/’OFF’ button is required to operate the heater.

Child / Function Lock:

Prevents children from altering heater settings whilst running, or from activating the heater when turned ‘OFF’.

Memory:

The micro-computer records selected preset temperatures, the times programmed into Timers as well as operating the Economy/Auto-Off and Pre-heat modes, to maintain comfort levels.

7 Step Automatic Heat Control:

Selected temperature is controlled via thermostat. The optimum corresponding fan speeds are controlled by the Central Processing Unit.

Pre-heat:

This function will automatically operate the appliance before the programmed start time of the Timer, in order to heat a room to the pre-set temperature by the programmed start time.

Economy Mode:

The economy mode function is an energy saving feature designed to control the room temperature and prevent discomfort from over heating.

Override Function:

This temporarily changes the heater operation from ‘ON’ to ‘OFF’, or vice versa, until the next programmed setting is reached.

Dual Weekday / Weekend Timer:

The Dual WEEKDAY/WEEKEND Timer allows you to program the appliance to come on for two separate periods each day, one period in the morning and one period in the evening.

The built in Pre-heat Mode brings the room temperature to the temperature you have selected, by the time programmed into the Timer.

The Dual Timer feature means that you can "Set and Forget" your heater. It will turn itself ‘ON’ or to STANDBY at the times you have programmed until you cancel the Timer program.

Filter Indicator:

When the fan filters become covered with dust, the filter indicator will flash.

The filters should be vacuumed at regular intervals to avoid unnecessary strain on the appliance.

Humidifier Tray:

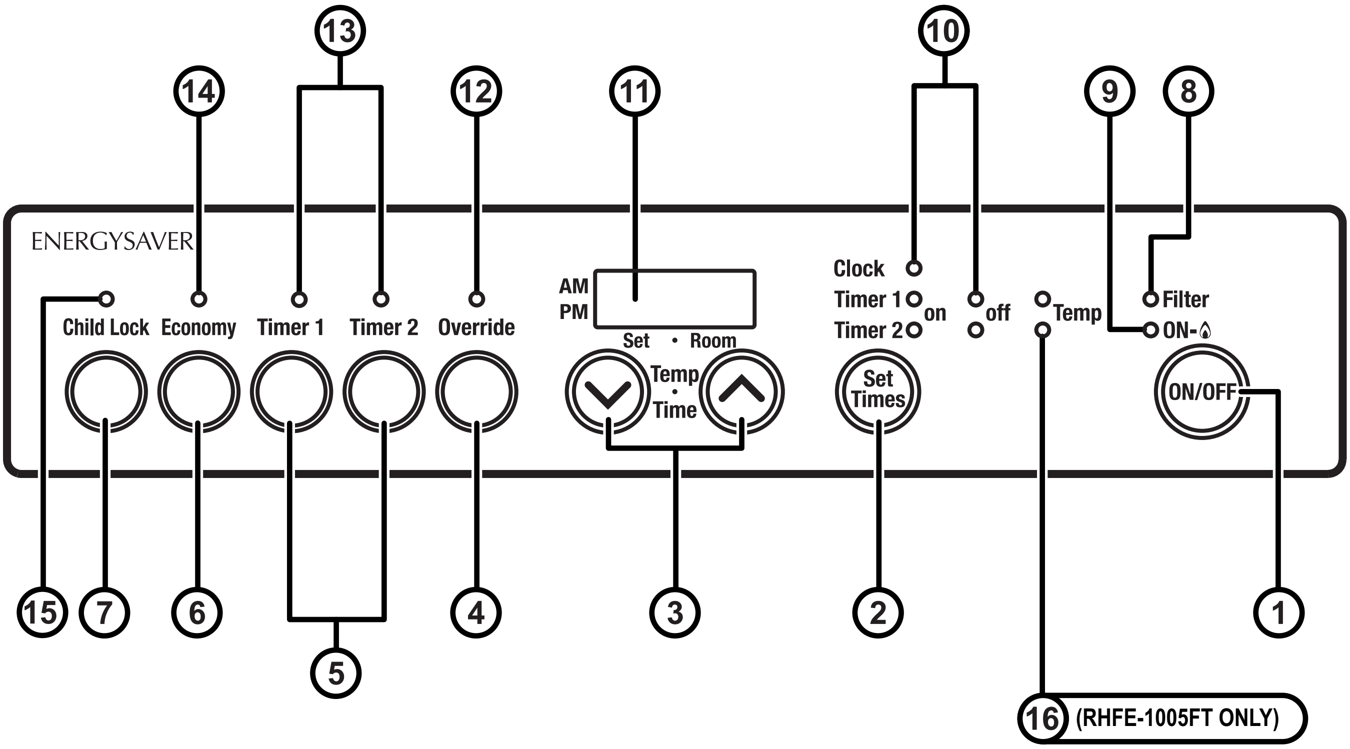
The integral humidifier tray can be filled with water as required to raise the humidity level in the room for extra comfort.

The integral humidifier tray should not be filled to more than 3/4 full, or more than the MAX Fill line when this is indicated.

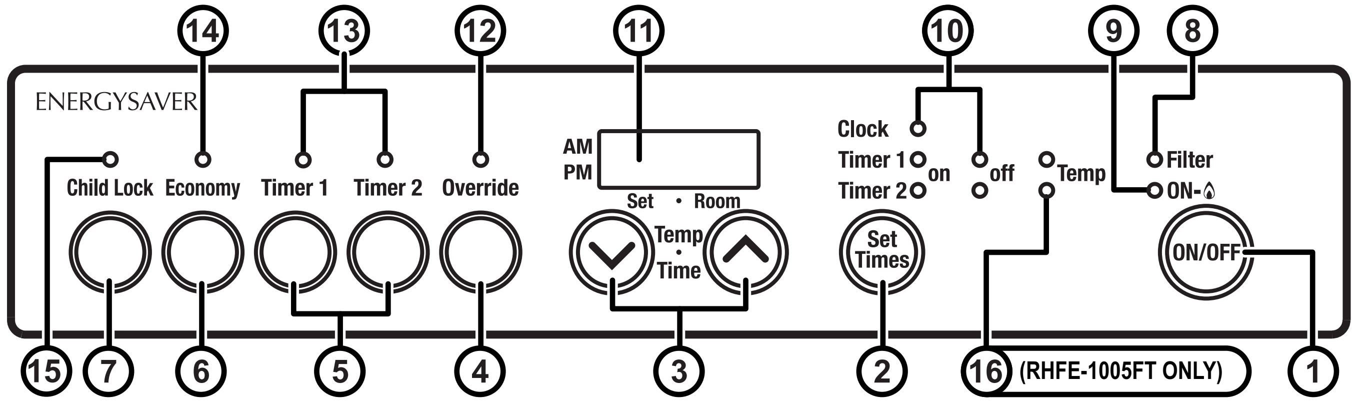
Questions?

Contact Rinnai using the contact numbers listed on the back cover of this booklet for further advice.

CONTROL PANEL GENERAL LAYOUT



No.	Item	Description
1	'ON' / 'OFF' BUTTON	Main switch for turning 'ON / OFF'.
2	SET TIMES BUTTON	Selects clock and/or Timers for adjusting or programming.
3	TIME / TEMP ADJUSTMENT BUTTONS	Increases or decreases the temperature setting as well as changing hours or minutes
4	OVERRIDE BUTTON	Temporarily changes operation from ON to OFF or OFF to ON, until next programmed setting is reached.
5	ON TIMER BUTTON	Selects operating mode for Timers 1 & 2 period.
6	ECONOMY BUTTON	Selects energy saving function
7	CHILD / FUNCTION LOCK BUTTON	Locks all controls when pressed. (EXCEPT OFF)
8	FILTER INDICATOR	Indicates that the filter needs cleaning.
9	POWER ON/ COMBUSTION INDICATOR	Indicates that the appliance is turned ON and whether the burner is alight.
10	CLOCK & TIMER ADJUSTMENT INDICATORS	Indicates that clock or dual timer programme is being set
11	TIME / TEMP DISPLAY	Shows either the time of day, temperatures, or coded error message
12	OVERRIDE INDICATOR	Indicates that the override function is activated.
13	TIMER INDICATOR	Indicates that Timer 1 or Timer 2 has been selected to operate.
14	ECONOMY INDICATOR	Indicates that the Economy mode is in operation.
15	CHILD / FUNCTION LOCK INDICATOR	Indicates that the Child / Function Lock is activated (see page 11).
16	TIMER TEMPERATURE ADJUSTMENT INDICATORS	(RHFE-1005FT ONLY) Indicates set temperature for the dual timer programme is being set.



TO TURN THE UNIT ‘ON’

Press the ‘ON’/’OFF’ button ① to operate the heater. The ‘ON’ indicator ⑨ will glow green. The spark generator will be heard before the burner ignites and the ‘ON’ indicator ⑨ glows red, indicating that the heater is alight.

When the heater warms up, the fan will automatically start.

If the heater does not ignite on initial use, this may be due to air remaining in the gas supply line. The spark generator will only continue for 15 seconds. After this it will be necessary to press the ‘ON’/’OFF’ button ① ‘OFF’, then ‘ON’ again.

Before a re-ignition can be attempted it will be necessary to press the 'ON'/'OFF' button ① 'OFF', then 'ON' again.

If the appliance still fails to ignite after 4 attempts, contact Rinnai as a service call may be required.

TO TURN THE UNIT ‘OFF’

Simply press the ‘ON’/’OFF’ button ① to switch ‘OFF’ the heater. The ‘ON’ indicator ⑨ light will go out. The fan will continue to operate for several minutes after the burner has gone out in order to cool the appliance. Do not unplug the appliance while the fan is running.

ROOM TEMPERATURE ADJUSTMENT

With exception of the RHFE1005FT model heaters the room temperature and pre-set temperatures can only be displayed and adjusted when the heater is running.

NOTE

For RHFE1005FT the set temperature can be adjusted when setting the on/off timer see “SETTING THE ON / OFF TIMERS - RHFE-1005FT” on page 14 for details.

Press the “∧” button ③ to increase the temperature setting or the “∨” button ③ to decrease the temperature setting.

The temperatures can be preset to:

a) [L] - Temperature is controlled at set temperature “Low”.

b) [16°C] to [26°C] in 1°C steps - thermostatic control to preset temp selected.
Combustion rate varies as required to maintain the selected temperature.

c) [H] - continuous combustion on ‘High’.

NOTE

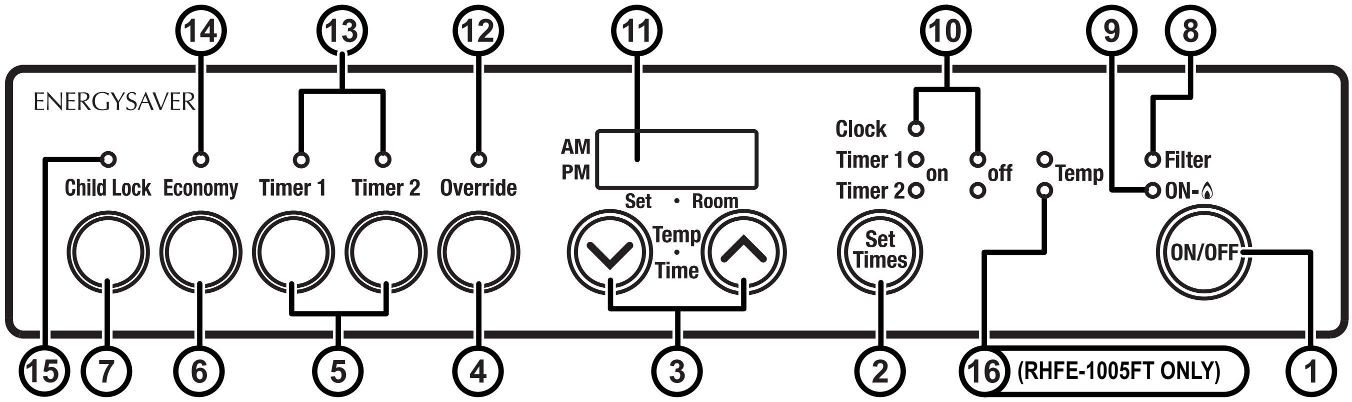
Room temperature on the Temp/Time Display ⑪ may vary slightly from the actual room temperature.

If the heater does not ignite then the pre-set temperature may not be set to a setting which is higher than the room temperature.

The ‘ON’ indicator ⑨ will change colour from red to green when the heater reaches the pre-set temperature and stops running.

The display will dim approximately 10 seconds after the last control input.

The display is also dimmed while the appliance is operating.



ECONOMY MODE

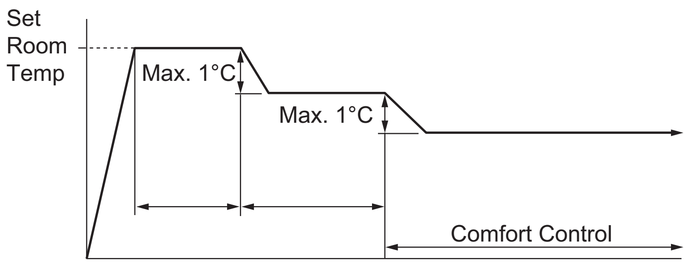
The economy mode, when selected, has the ability prevent discomfort from over heating and to reduce gas consumption and ultimately save energy. Once a room has reached the desired temperature, the unit will automatically begin reducing the set temperature gradually. This reduction is normally not noticeable, however, it is purely your choice whether to select this mode.

> NOTE
> **Room temperature may not decrease in some cases, this is depending on room style, location of the appliance and the temperature outside the room.**
>
> **The economy mode can only be operated when the heater is turned 'ON', but remains in the system memory until deactivated.**
>
> **The economy mode will not operate when the set room temperature is less than 16°C or is above 26°C.**

How it works :

After a room reaches the set temperature, the set room temperature will decrease 2 times automatically, each time, dropping by a maximum of 1°C in 30 minute blocks. From the second cycle onwards, the comfort control will automatically operate. (The comfort control alters combustion and fan speed more frequently to counteract the feeling of cold air).

The Economy function will not operate when the set room temperature is less than 16°C or above 26°C.



1. Press the Economy button ⑥ to start the Economy function. The Economy indicator ⑭ will glow.
2. Press the Economy button ⑥ once more to switch 'OFF' the economy function.

> NOTE
> **When the Economy function is operating, the current room temperature may be shown as being lower than the set room temperature, however, this is normal.**

CHILD / FUNCTION LOCK

The Child / Function Lock function will help to prevent accidental operation as well as prevent small children from altering the controls. To operate the Child / Function Lock simply press the Child / Function Lock button ⑦. The function is activated immediately and the Child / Function Lock indicator ⑮ will glow green.

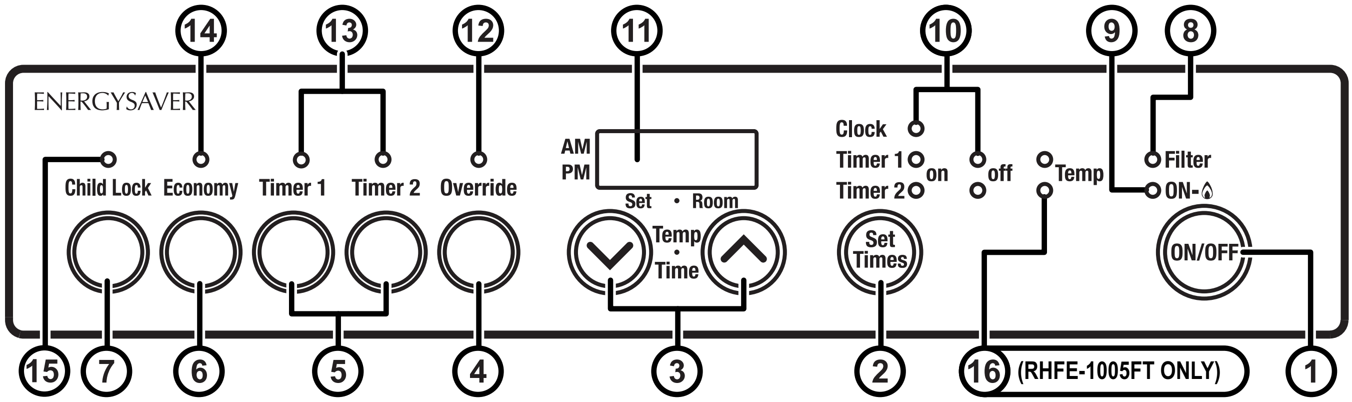
To deactivate the Child / Function Lock simply press the Child / Function Lock button ⑦ for 2 seconds and the Child / Function Lock indicator ⑮ will go out. The Child / Function Lock can be deactivated at any time in this way.

During normal operation the Child / Function Lock may be activated and all controls, other than the 'OFF' switch, will be locked. Deactivating the Child / Function Lock releases the controls. If the Child / Function Lock is activated whilst the heater is turned 'OFF', then all functions will be locked. If the heater is turned 'OFF' while the Child / Function Lock is activated, it cannot be turned 'ON' again until the Child / Function Lock is deactivated.

FAN OPERATION

The fan turns 'ON' automatically when the heat exchanger warms up and turns "OFF" when it cools down. This helps to prevent cold draughts and maximises efficiency.

ADVANCED HEATER OPERATION



SETTING THE CLOCK - RHFE-309FT / 559FT / 561FT

When the appliance is first plugged in or after a power failure, the Digital Display ⑪ with show --:--

As an example, let's set the clock to 10:35 am:

1. Press the Set Times button ② once, the Clock indicator ⑩ will flash.
2. Press and hold the "︿" button ③; the minutes will begin to change first then the time will change by whole hours.
3. Release the button when AM 10:00 shows on the Digital Display ⑪. Confirm that you have selected AM, a small indicator on the left hand side of the Digital Display indicates the AM setting.
4. Press and hold the "︿" button ③ again, release the button when AM 10:35 shows. If you go past AM 10:35, then the "﹀" button ③ can be used to change the time settings in reverse.
5. Press the Set Times button ② five times to lock in and complete setting the time. The Clock and Timer indicators will go out. A small indicator on the Digital Display ⑪ will flash to show that the Clock is operating.

NOTE

The display will dim approximately 10 seconds after the last control input.

The display is dimmed while the appliance is operating.

The display is turned off when the appliance is not in operation (Standby).

SETTING THE CLOCK - RHFE-1005FT

When the appliance is first plugged in or after a power failure, the Digital Display ⑪ with show --:--

As an example, let's set the clock to 10:35 am:

1. Press the Set Times button ② once, the Clock indicator ⑩ will flash.
2. Press and hold the "︿" button ③; the minutes will begin to change first then the time will change by whole hours.
3. Release the button when AM 10:00 shows on the Digital Display ⑪. Confirm that you have selected AM, a small indicator on the left hand side of the Digital Display indicates the AM setting.
4. Press and hold the "︿" button ③ again, release the button when AM 10:35 shows. If you go past AM 10:35, then the "﹀" button ③ can be used to change the time settings in reverse.
5. Press the Set Times button ② seven times to lock in and complete setting the time. The Clock and Timer indicators will go out. A small indicator on the Digital Display ⑪ will flash to show that the Clock is operating.

NOTE

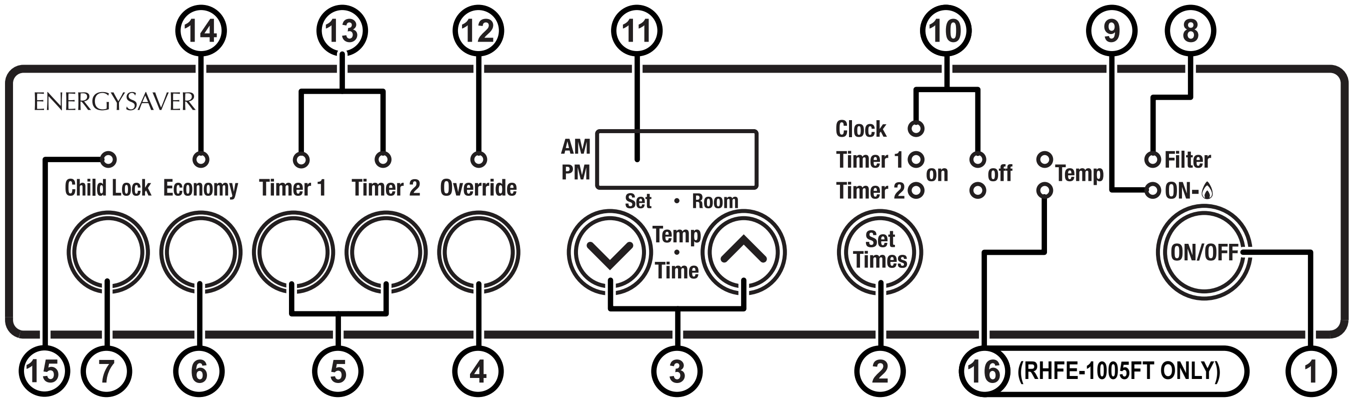
The display will dim approximately 10 seconds after the last control input.

The display is dimmed while the appliance is operating.

The display is turned off when the appliance is not in operation (Standby).

DAY LIGHT SAVING AND TIME ADJUSTMENT ALL MODELS

Follow steps 1 to 5 to adjust for day light saving and for time adjustment.



SETTING THE ON / OFF TIMERS - RHFE-309FT / 559FT / 561FT

NOTE

Before programming the Timers you must ensure that the clock has been set to the correct time.

If during setting no buttons are pressed for 1 minute the setting sequence will automatically cancel and the display will revert to the normal display.

In the following example: Timer 1 will be programmed to heat the room by 7:10 am and finish heating the at 9:00 am.

1. Press the Set Times button ② twice. The Timer 1 ‘on’ indicator ⑩ will flash.
2. Press and hold the “︿” or “﹀” buttons ③ until AM 7:00 appears, release the button, then press “︿” button until AM 7:10 appears. (Press the “︿” or “﹀” buttons ③ if you go past).
3. Press the Set Times button ② again, the Timer 1 ‘off’ indicator ⑩ will flash. Press and hold the “︿” button ③ until AM 9:00 appears.
4. To bypass Timer 2 and lock in the time and the settings for Timer 1, press the Set Times button ② three times.
5. The Digital Display ⑪ will show the current time and a small indicator on the Digital Display ⑪ will flash to show that Timer setting has been exited and the display is in clock mode.

OR

6. Press the Set Times button ② again to proceed to Timer 2, programming for which is the same as for Timer 1.

   Remember to ensure that the correct Timer indicator ⑩ is flashing when you program in the desired settings.

OPERATING THE TIMERS - RHFE-309FT / 559FT / 561FT

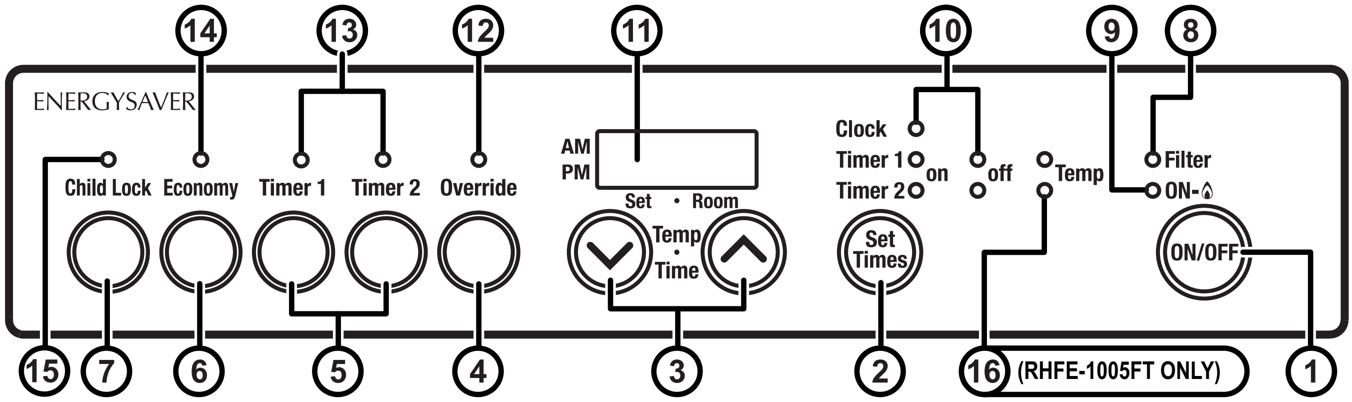
The timers can be programmed to operate for any two time periods in any 24 hours. Before operating the Timer(s), the clock time must be correct and a starting time and finishing time for the Timer(s) must be programmed. The two Timers operate in the same way. This heater uses Pre-Heat to heat a room ***by*** the programmed starting time, see the following section “PRE-HEAT” on page 15 for details about pre-heat operation.

Refer to ‘Setting the Clock’ and ‘Setting the ON / OFF Timers’ sections to confirm that the correct time and timers have been set. Alternatively if the heater is already on press Set Times button ②, each press of the Set Times button ② will cycle through the time/timer settings as follows:

Clock (current set time) > Timer 1 ‘on’ > Timer 1 ‘off’ > Timer 2 ‘on’ > Timer 2 ‘off’

To select the set Timer(s) to commence heating:

1. Press the ON/OFF button ① to operate the heater without The Clock / Timer indicator ⑩ flashing. The ‘ON’ indicator ⑨ will glow green.
2. Select the desired temperature setting.③
3. Press the Timer 1 and/or Timer 2 button(s) ⑤. The Timer indicator(s) ⑬ will glow. The heater will now remain on standby until up to one hour prior to the time programmed into the selected Timer(s) is reached. Timer indicator ⑬ will also flash during Pre-heat (Combustion). When this time is reached, the Timer indicator ⑬ will flash and the heater will operate. The ‘ON’ indicator ⑨ glows red when the heater commences operation. Actual start time will depend on temperature selected and current room temperature. (Refer to “PRE-HEAT” on page 15 for details).



SETTING THE ON / OFF TIMERS - RHFE-1005FT

NOTE

Before programming the Timers you must ensure that the clock has been set to the correct time.

If during setting no buttons are pressed for 1 minute the setting sequence will automatically cancel and the display will revert to the normal display.

In the following example: Timer 1 will be programmed to heat the room by 7:10 am and finish at 9:00 am at a temperature of 18°C.

1. Press the Set Times button ② twice. The Timer 1 'on' indicator ⑩ will flash.
2. Press and hold the "︿" or "﹀" buttons ③ until AM 7:00 appears, release the button, then press "︿" button until AM 7:10 appears. (Press the "︿" or "﹀" buttons ③ if you go past).
3. Press the Set Times button ② again, the Timer 1 'off' indicator ⑩ will flash. Press and hold the "︿" button ③ until AM 9:00 appears.
4. Press the Set Times button ② again, the Timer 1 'Temp' indicator will flash ⑯. Press the "︿" or "﹀" buttons ③ until 18 appears.
5. To bypass Timer 2 and lock in the time and the settings for Timer 1, press the Set Times button ② four times.
6. The Digital Display ⑪ will show the current time and a small indicator on the Digital Display ⑪ will flash to show that Timer setting has been exited and the display is in clock mode.

OR

7. Press the Set Times button ② again to proceed to Timer 2, programming for which is the same as for Timer 1. Remember to ensure that the correct Timer indicator ⑩ is flashing when you program in the desired settings.

OPERATING THE TIMERS - RHFE-1005FT

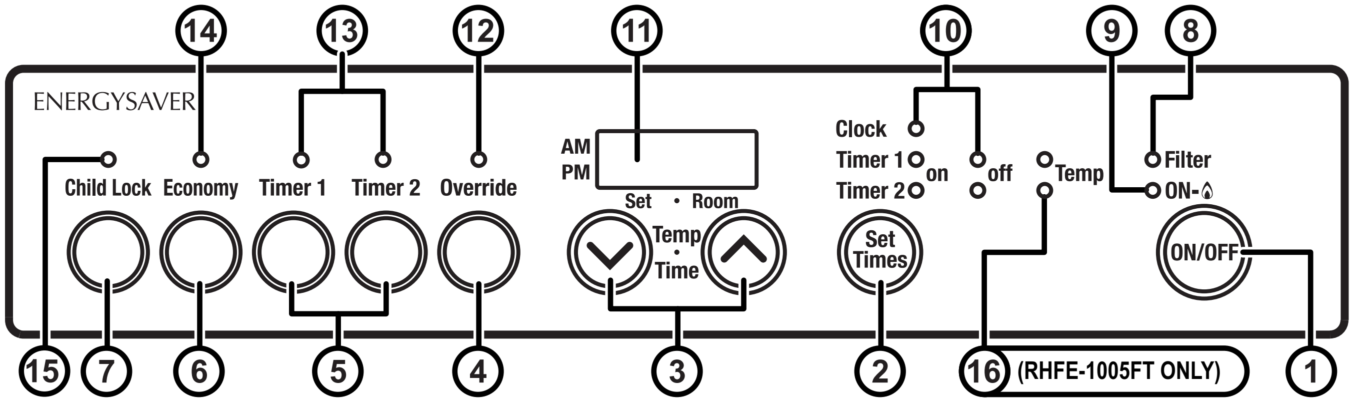
The timers can be programmed to operate for any two time periods in any 24 hours. Before operating the Timer(s), the clock time must be correct and a starting time and finishing time for the Timer(s) must be programmed. The two Timers operate in the same way. This heater uses Pre-Heat to heat a room ***by*** the programmed starting time, see the following section "PRE-HEAT" on page 15 for details about pre-heat operation.

Refer to 'Setting the Clock' and 'Setting the ON / OFF Timers' sections to confirm that the correct time and timers have been set. Alternatively if the heater is already on press Set Times button ②, each press of the Set Times button ② will cycle through the time/timer settings as follows:

Clock (current set time) > Timer 1 'on' > Timer 1 'off' > Timer 1 'Temp' > Timer 2 'on' > Timer 2 'off' > Timer 2 'Temp'

To select the set Timer(s) to commence heating:

1. Press the ON/OFF button ① to operate the heater without The Clock / Timer indicator ⑩ flashing. The 'ON' indicator ⑨ will glow green.
2. Press the Timer 1 and/or Timer 2 button(s) ⑤. The Timer indicator(s) ⑬ will glow. The heater will now remain on standby until up to one hour prior to the time programmed into the selected Timer(s) is reached. Timer indicator ⑬ will also flash during Pre-heat (Combustion). When this time is reached, the Timer indicator ⑬ will flash and the heater will operate. The 'ON' indicator ⑨ glows red when the heater commences operation. Actual start time will depend on temperature selected and current room temperature. (Refer to "PRE-HEAT" on page 15 for details).



SET AND FORGET OPERATION

Your heater can be operated to alternate between Timers automatically during cold weather by selecting both Timer 1 and 2 together. The Timer indicator(s) ⑬ for both timers will glow. The appliance will remain on standby at intervals between the programmed finishing and starting times of each Timer. While the heater is operating during programmed intervals the active Timer indicator ⑬ will flash.

NOTE

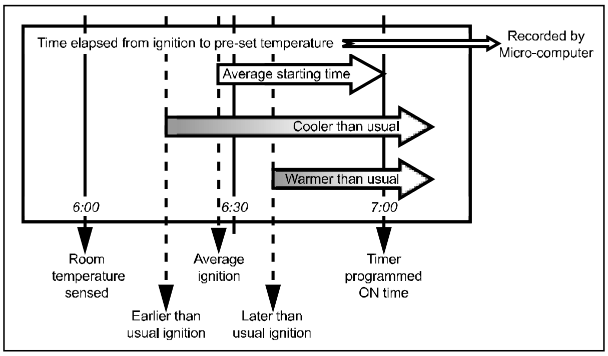
If there is a power failure, the system memory will retain the Timer programs, and the clock will stop at the time the power goes off. The clock will re-start again when the power comes back on, but the time will be slow by the duration of the power failure.

To set the clock to the correct time after the power has come back on, simply follow the instructions on "Setting the Clock" on page 12.

PRE-HEAT

This function operates automatically in conjunction with the Timers. When a Timer is selected, the heater may operate anywhere within an hour prior to the programmed starting time on the Timer. This function is called Pre-Heat since it ensures the room reaches the desired temperature by the programmed starting time.

The room temperature is sensed one hour before reaching the Timers programmed ON time. The temperature differential at the time of sensing the room temperature combined with the data from previous operation governs exactly how long before the programmed 'ON' time the micro-computer will operate the heater and ignite the burner.



OVERRIDE

This function is intended to be used to manually override the current operation of the heater. For example; if the heater is in standby mode (i.e. between finishing time and starting time of a Timer) and the Override ④ button is selected, then the heater will begin to operate and heat the room.

To operate the Override simply press the Override button ④. The Override indicator ⑫ will flash.
To manually deactivate the Override simply press the Override button ④ again. The Override indicator ⑫ will go out, and the heater will return to standby mode.The heater will continue to operate on Override until the Override button is pressed again, or one of the Timers takes over the operation of the appliance. This means that the Override mode will automatically drop out if a programmed starting time is reached.

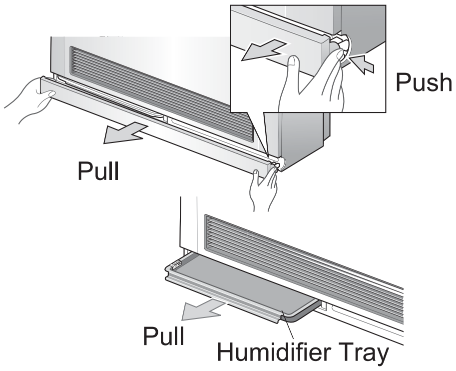
The appliance will then return to operating at the times programmed into the Timer(s).

ADDITIONAL HEATER OPERATION INFORMATION

HUMIDIFIER TRAY

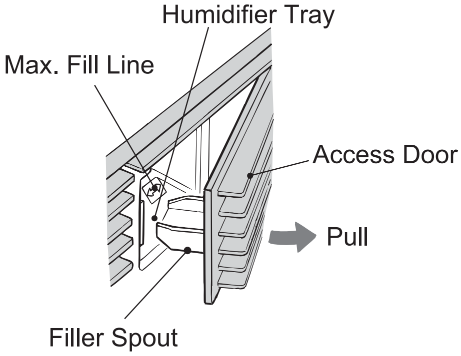
Your heater is fitted with an enamelled tray behind the air outlet so that you can humidify the air. To fill the tray, open the access panel / door as shown in the diagrams below and pour water into the tray using the spout built into the access panel. The air will be humidified as it passes over the water in the tray.

RHFE-309FT / 559FT / 561FT



Replace panel during operation.

RHFE-1005FT



**DO NOT force door open too far.
Close door during operation.**

CAUTION

DO NOT FILL THE TRAY OVER 3/4 FULL.

HUMIDIFIER TRAY MAY BECOME HOT!

DO NOT FILL THE HUMIDIFIER TRAY WHILST THE HEATER IS IN OPERATION.

DO NOT fill the humidifier tray for at least 5 minutes after the heater stops operating.

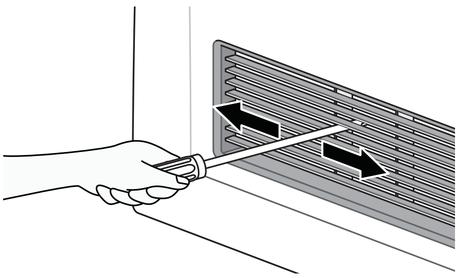
DO NOT operate the heater without the humidifier tray in place.

If you notice water in the humidifier tray, but have not placed any there do not be alarmed, this is normal. Due to the high efficiency of Energysaver heaters, water in the form of condensate is accumulated in the flue system which drains into the humidifier tray.

If the humidifier is in use, it will need filling typically about once a day during the heating season.

VERTICAL LOUVRE ADJUSTMENT

The warm air flow direction may be altered by carefully inserting a screwdriver or similar tool and gently bending the vertical louvre(s) either to the left or the right.



CAUTION

DO NOT attempt to bend the horizontal louvres.

The vertical louvres are not designed to be adjusted more than 6 times.

OUTSIDE FLUE TERMINAL

On cold days steam may be discharged from the flue terminal. This is normal with high efficiency appliances such as the Energysaver range and does not indicate any fault.

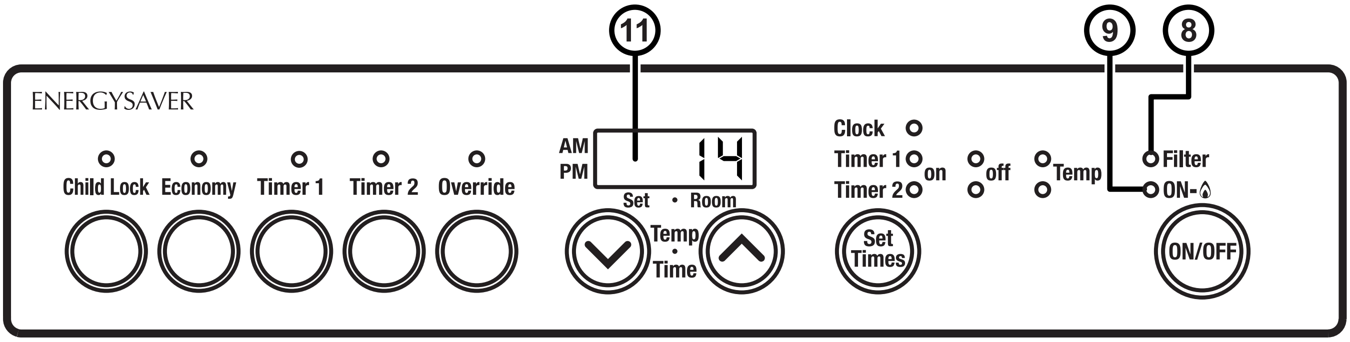
CAUTION

The heater and its flue must be installed correctly by an authorised person, and the installation must conform to all local regulations. The installation also must comply with the instructions supplied by Rinnai.

This heater must be serviced, installed and removed by an authorised person.

No parts or functions should be modified or permanently removed from the heater or its flue.

CARE AND MAINTENANCE



CLEANING

Your heater needs very little maintenance, however the following information will help you keep it looking good and working efficiently.

IMPORTANT

- **Unplug electrical cord before cleaning.**
- **All parts of the heater can be cleaned using a soft, damp cloth and a mild detergent.**
- **DO NOT use solvents or abrasives to clean any parts or surfaces.**
- **DO NOT attempt to clean the heater while the appliance is hot or operating.**

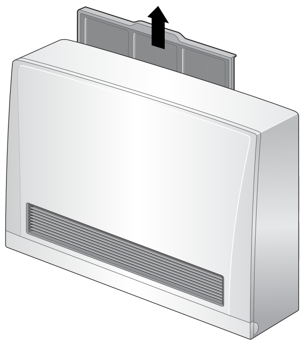
HUMIDIFIER TRAY

If the humidifier tray gets dirty, wash in warm soapy water. With the heater cold, remove the lower cover panel and pull out the humidifier tray from the appliance. If there is water in the tray, keep the tray level to avoid spilling.

NOTE **The RHFE-1005FT has a fixed humidifier tray that is NOT removable.**

FAN FILTER(S)

To protect the appliance internals from dust particles or lint, a filter(s) is situated at the rear of the heater. If the filter(s) becomes blocked, the Filter indicator ⑧ will flash to indicate that it should be cleaned.



Clean the filter(s) weekly during the heating season as dusty or clogged filters reduce the air flow through the appliance reducing heating effectiveness.

To remove the filter(s) for cleaning pull straight up and out from appliance, note that the RHFE-1005FT has two filters.

If the filter(s) becomes blocked during heater operation and requires cleaning, the ‘ON’ indicator ⑨ will flash and the Digital Display ⑪ will show error code 14.

WARNING

DO NOT remove or attempt to clean filter(s) while the appliance in operation.

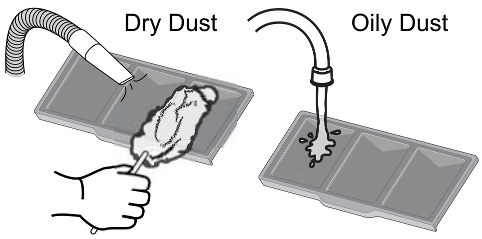
DO NOT use the heater with the Filter indicator ⑧ flashing as this may cause overheating.

DO NOT wait for the Filter indicator ⑧ to flash before cleaning filter(s). If you do not clean the filter(s) at regular intervals or the Filter indicator ⑧ is allowed to remain flashing, then the appliance will stop. You MUST clean the filter(s) before operating the heater again.

CLEANING THE FAN FILTER(S)

Dry dust / lint: Use duster or vacuum to remove dust.

Oily dust / lint: Wash the fan filter(s) with a mild detergent. Drain off the water and dry the filter(s) before returning to the appliance.



WARNING **Return Fan Filter(s) to the appliance after cleaning. DO NOT attempt to operate the appliance without filter(s) in place.**

FLUE TERMINAL

IMPORTANT **Regularly check the outside flue terminal to make sure it is clear from plant growth and from other obstructions. Refer to “SAFETY” on page 7 for additional requirements.**

SAVE A SERVICE CALL

Before asking for a service call please check the following table as these characteristics are part of the normal operation of the appliance and do not indicate a fault.

CHARACTERISTIC ➡	EXPLANATION
At ignition:	
Warm air does not start when the burner lights. ➡	The fan is started automatically after a short delay. This is to allow the heat exchanger to warm up, helping to avoid cold draughts.
Smoke or strange smells are produced on the first up operation after installation. ➡	This is caused by grease, oil or dust on the heat exchanger when new. This will stop after a short time.
Sharp clicking noises at ignition, or when the unit thermostat modulates to a lower or higher setting, or shuts down. ➡	This is simply expansion and contraction noise from the heat exchanger and is normal.
During combustion:	
Clunking noise when the thermostat operates ➡	This is the sound of the solenoid gas valves opening and closing to regulate the gas flow and is normal.
When the appliance is turned off:	
Convection fan continues to run after turning off. ➡	This is to remove residual heat from the heat exchanger and stops once the appliance cools.
Other points:	
Steam is discharged from the flue terminal. ➡	High efficiency appliances tend to discharge water vapour on cold days. This is normal.
Heater does not start when the ON button is pushed. ➡	Room temperature may be higher than the set temperature, increase set temperature if desired.
Heater stops operation when the thermostat is set to the High (H) setting. ➡	Check that the appliance On / Off button is ON. Room temperature is higher than that achievable by the appliance.
Timer(s):	
Timer(s) do not operate at set time. ➡	Timer(s) may either be inactivated or incorrectly programmed. Please confirm Timer(s) are set correctly. See pages 12 through 15 for correct Timer(s) operation.
Timer operates for a short period and then cuts out. ➡	Room temperature may be higher than the set temperature. Increase set temperature if desired.

SERVICE

Rinnai recommend that this appliance and installation be inspected and serviced every 2 years.

If the power supply cord or any other component of the heater are damaged, they must be replaced by Rinnai or a suitably qualified person.

Any service or repair work should only be carried out by an authorised person. Rinnai has service and spare parts departments nationally, see back cover for contact details.

NOTE

Service calls for general cleaning, maintenance and wear and tear are not necessarily covered under the warranty. Service calls of this nature may be chargeable.

Faults caused by insufficient gas supply, gas quality, installation errors or operation errors are not covered by the Rinnai warranty. Refer to separate warranty booklet.

TROUBLE SHOOTING CHECKLIST

Use the following chart to help determine whether a service call is required, however if you are unsure about the way your heater is operating, contact Rinnai or your local agent.

Fault Condition → / Probable Cause ↓	No Power ON/ Combustion Indicator	Burners fail to ignite	Unusual Combustion	Combustion stops during operation	Smell of gas	Noisy Ignition	Possible Remedy ↓
Not plugged in	●	●					Plug in power cord and press On/Off ① button.
Mains power failure	●	●		●			Re-start manually after power is restored.
(Initial Install) Air in gas pipe		●					Installer to purge air from gas supply.
Gas filter obstructed		●	●				Service call (contact Rinnai).
Mis-Ignition	●	●					Check the Operation Instructions.
Flue terminal obstructed			●	●		●	Clear the obstruction.
Flue manifold disconnected					●	●	**DO NOT** use heater, Service call (contact Rinnai).
Louvre obstructed				●			Clear the obstruction.
Air filter blocked.				●			Clean filter page 17
Gas escape					●		Turn **OFF** gas supply at the meter / cylinder, Service call (contact Rinnai).
On timer set		●					Cancel timer or press Override button page 15.
Gas turned off at meter / cylinder		●					Turn gas supply on at the meter / cylinder.
Child / function lock set		●					Cancel Child / function lock page 11

ERROR CODES

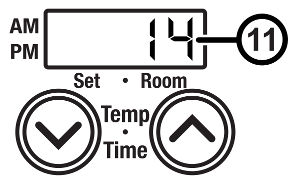
NOTE

In all cases, you may be able to clear the Error Message simply by turning the heater 'OFF', then 'ON' again.

If the Error Message still remains or returns on the next operation, contact Rinnai or your nearest service agent and arrange for a service call.

The Energysaver Range of heaters has the ability to monitor its own operation continuously. If a fault occurs, an Error Message will flash on the Digital Display ⑪ on the control panel. This assists with diagnosing the fault, and may enable you to overcome a problem without a service call.

Please quote the code displayed when inquiring about service.



Code	Probable Cause	Suggested Remedy
11	Ignition failure	Check gas supply is turned on, turn the heater 'OFF' and then 'ON' again. **If the error persists a service call will be required.**
12	Flame failure	Check gas supply is turned on.
14	Filter blockage / overheat	Clean filter(s). **If the error persists a service call will be required.**
16	Room overheat	Lower room temperature to less than 40°C.
30	Overheat temperature sensor faulty	**A service call will be required.**
31 - 32	Room temperature sensor faulty	**A service call will be required.**
33 - 35	Overheat temperature sensor faulty	**A service call will be required.**
53	Spark sensor faulty	**A service call will be required.**
61	Combustion fan faulty	**A service call will be required.**
62	Convection fan faulty	**A service call will be required.**
70	Faulty 'ON/OFF' switch	**A service call will be required.**
71	Faulty solenoids	**A service call will be required.**
72	Flame detection circuit fault	**A service call will be required.**
73	Communication error	**A service call will be required.**
81	Faulty solenoids	**A service call will be required.**

NOTES

INSTALLATION MANUAL

INSTALLATION GENERAL

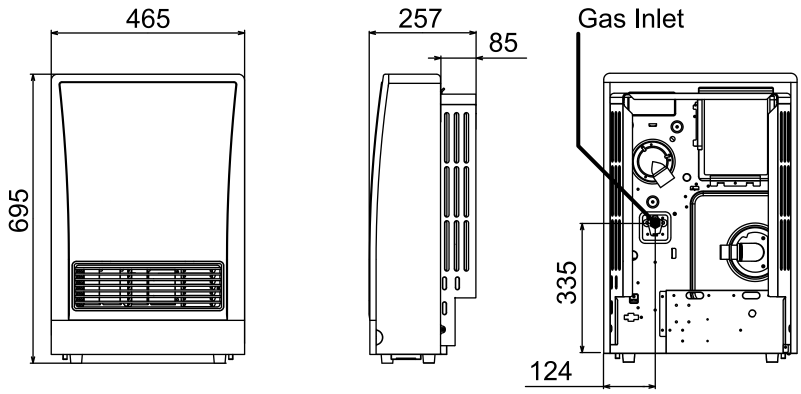
PRODUCT SPECIFICATIONS

Model		RHFE-309FT	RHFE-559FT	RHFE-561FT	RHFE-1005FT
Dimensions (mm)	Height	695	582	750	670
	Width	465	760	545	930
	Depth	257	257	262	330
Weight (kg)		21	26	25	42
Gas Control Valve		Rinnai Electronic Modulating Gas Valve			
Burner		Fabricated Stainless Steel - Bunsen Burner Type			
Injector (mm)	Natural Gas	2x 1.25 Ø	4x 1.25 Ø	4x 1.25 Ø	4x 1.50 Ø 1x 0.45 Ø
	Propane Gas	2x 0.85 Ø	4x 0.82 Ø	4x 0.82 Ø	4x 1.00 Ø 1x 0.30 Ø
Gas Inlet Thread		R ½' Male (15mm)			
Flue System		Fan assisted, twin chamber Co-Axial Flue System, provides air for combustion to the appliance and allows expulsion of combustion products to atmosphere. Results in 'room sealed' appliance.			
Ignition		Direct continuous spark electronic ignition			
Electrical Supply		230V / 240V 50Hz with supply lead and 3 pin plug Replace **ONLY** with Rinnai genuine part			
Standby Power Consumption		<1W			
Convection Fan		Centrifugal Drum Type Fan	Cross Flow Type fan	Centrifugal Drum Type Fan	
Temperature Range		16°C to 26°C in 1°C increments			
The manufacturer reserves the right to change or modify specifications without notice.					

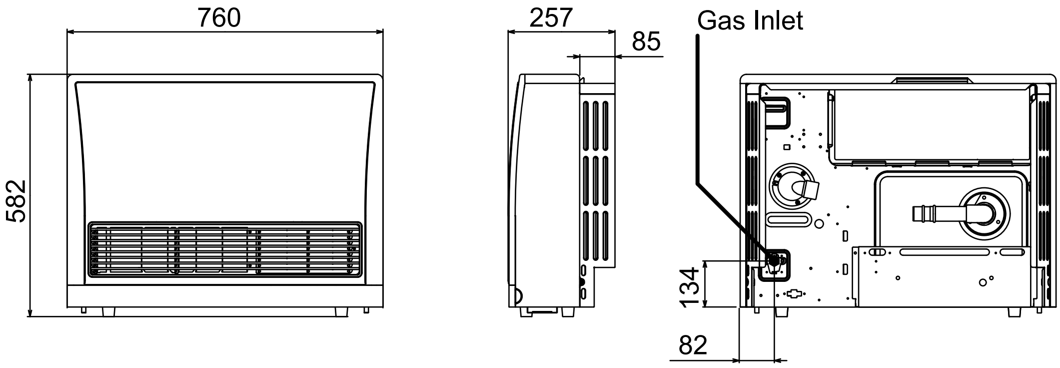
NOTE **For other appliance specifications refer to appliance data plate.**

DIMENSIONS

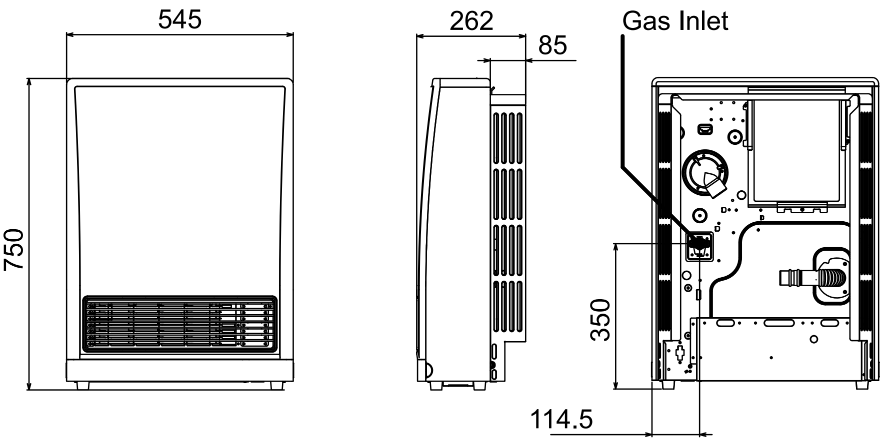
RHFE-309FT



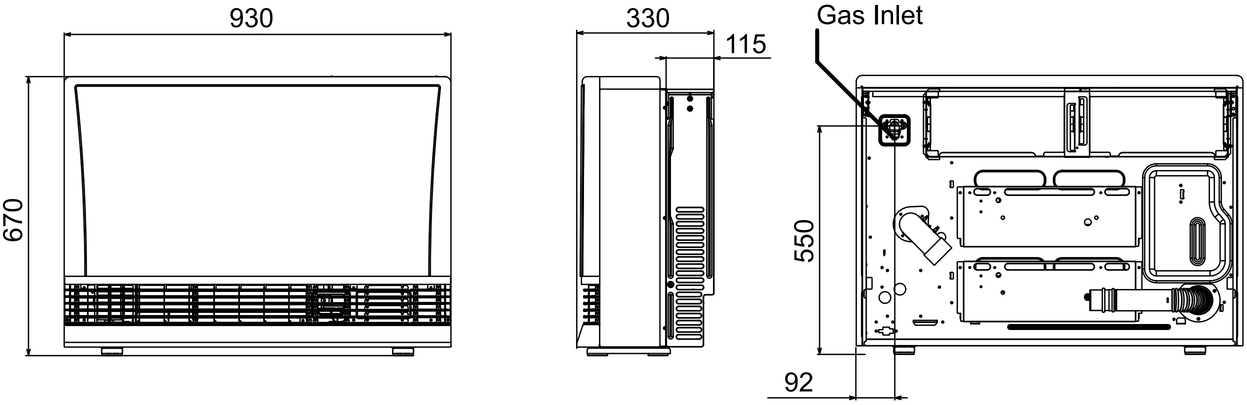
RHFE-559FT



RHFE-561FT



RHFE-1005FT



HEATER LOCATION

When positioning the heater the main variables governing the location are Flueing and Warm Air Distribution.

This heater must not be installed where curtains or other combustible materials could come into contact with it. In some cases curtains may need restraining.

WARNING

For all installations, ONLY Rinnai Energysaver Flue components MUST be used. The Rinnai Energysaver MUST NOT be flued into 'natural draft' flue system or via a chimney.

Consult the Rinnai 'Energysaver Space Heater Co-Axial flue System installation' manual included with the 'On Wall' or 'Direct' flue kits for detailed flue installation instructions.

GAS SUPPLY

The gas supply terminates outside the heater on the back of the appliance.

Locate the gas supply pipe to suit position as per the heater gas inlet. Refer to the dimension drawings on page 23 for appliance gas inlet location.

The gap required between the wall and heater body is 85 mm to 205 mm depending on Back Cover Kit is used.

IMPORTANT

Gas pipe sizing must consider the gas input to this appliance as well as all other gas appliances in the premises.

The gas meter and regulator must be specified for the total gas rate. Suitable sizing chart such as the one in AS/NZS 5601 should be used.

PURGING THE GAS SUPPLY: All foreign materials such as filings must be purged from the gas supply, as they may cause the gas control valve to malfunction.

ELECTRICAL SUPPLY

This heater has a power cord with a three pin plug supplied. The cord passes out of the rear of the appliance and can extend to the left or right of the appliance.

A dedicated 230V / 240V 50Hz earthed 10 Amp power point must be used with this appliance. The power point must to the left or the right side, it **MUST NOT BE** above the heater.

Alternatively the appliance can be direct wired if the power supply is to be concealed. The electric isolation switch **MUST BE** accessible after the appliance has been installed.

IMPORTANT

Consult a qualified electrician if direct wiring is required as it must comply with the requirements of AS/NZS 5601 and AS/NZS 3000 and any other relevant local regulations.

WARNING

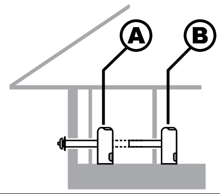
FLUE INSTALLATION

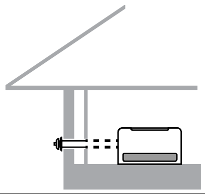
TYPES OF FLUE INSTALLATIONS

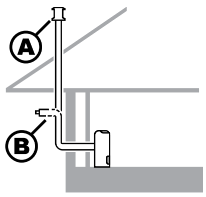
IMPORTANT

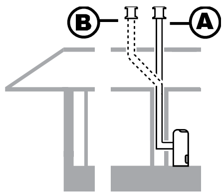
Consult the 'Energysaver Space Heater Co-Axial Flue Systems Installation Manual' included with the 'On Wall' or 'Direct' flue kits for detailed flue installation instructions. Use only Rinnai Flue components with this appliance.

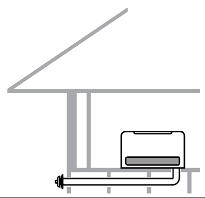
The following configurations are currently available. For alternative configurations contact Rinnai.

DIRECT / EXTENDED	Components			
	Option A (Direct)		**Option B (Direct Extended)**	
	Direct Flue Kit	ESDFK	Direct Flue Kit Co-Ax Pipe 900mm (Optional) #	ESDFK ESPIPE900

SIDEWAYS	Components	
	Direct Flue Kit Co-Ax Pipe 900mm # Back Cover Set (see note below)	ESDFK ESPIPE900

EXTERNAL WALL	Components			
	Option A (Vertical Termination)		**Option B (On Wall Termination)**	
	Direct Flue Kit Co-Ax Pipe 900mm # Bend (2 x 45º) Condensate Trap Roof Cowl	ESDFK ESPIPE900 ESBEND ESCONDK ESROOFCOWL	Direct Flue Kit Co-Ax Pipe 900mm # Bend (2 x 45º) Condensate Trap	ESDFK ESPIPE900 ESBEND ESCONDK

IN-WALL	Components			
	Option A (Direct)		**Option B (Offset)**	
	Vertical Adaptor Kit § Co-Ax Pipe 900mm # Roof Cowl	ESFKITIW *(ESKIT03)* ESPIPE900 ESROOFCOWL	Vertical Adaptor Kit § Co-Ax Pipe 900mm # Bend (2 x 45º) Roof Cowl	ESFKITIW (ESKIT03) ESPIPE900 ESBEND ESROOFCOWL

UNDER FLOOR	Components	
	Direct Flue Kit Co-Ax Pipe 900mm # Bend (2 x 45º) Back Cover Set (see note below)	ESDFK ESPIPE900 ESBEND

Order lengths as required

§ *Includes Condensate Trap (ESCONDK)*

NOTE

The Energysaver Heater comes supplied with a standard back cover kit. For 'Sideways' and 'Underfloor' installations, refer to the 'Energysaver Space Heater Co-Axial Flue System Installation Manual' for details of the alternative back cover kit required.

DO NOT

Flue is NOT to be terminated under the floor or in a roof space. 'Down & Out' and vertical 'through roof' flue installations are permitted ONLY when the flue terminal is located externally.

WARNING

For horizontal installations including 'Down & Out' flue systems there must be a continuous fall of at least 2° to the termination point to drain condensate.

Flue terminal must be at least 300 mm above the ground in accordance with AS/NZS 5601, Clause 6.9 and Fig. 6.2.

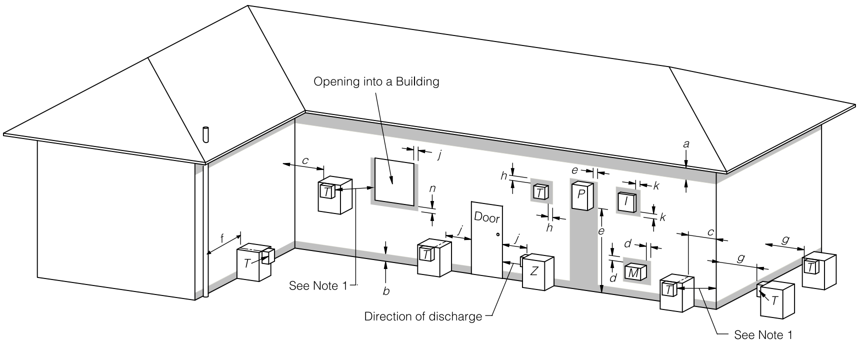
All terminations exceeding a vertical height of 1.5 metres must incorporate a condensate trap.

The 'AIR INTAKE' hose MUST NOT BE CUT OR SHORTENED. For more detailed information refer to 'Energysaver Space Heater Co-Axial Flue Systems Installation Manual'.

FLUE TERMINAL LOCATION

WARNING

Ensue that the location of the flue terminal complies with the requirements of AS/NZS 5601, Fig. 6.2 which is reproduced in part below.



T = Flue terminal *Z* = Fan assisted flue appliance only *M* = Gas meter *P* = Electricity meter or fuse box *I* = Mechanical air inlet

Shading indicates prohibited areas for flue terminals

Ref.	Item	Min. clearances (mm) Fan assisted
a	Below eaves, balconies and other projections:	
	• *Appliances* up to 50 MJ/h input	200
	• *Appliances* over 50 MJ/h input	300
b	From the ground, above a balcony or other surface *	300
c	Front a return wall or external corner *	300
d	From a gas *meter* (M) (see 5.11.5.9 for vent terminal location of *regulator*) (see Table 6.6 for New Zealand requirements)	1000
e	From an electricity *meter* or fuse box (P) †	500
f	From a drain pipe or soil pipe	75
g	Horizontally from any building structure* = or obstruction facing a terminal	500
h	From any other *flue terminal* , cowl, or combustion air intake †	300
j	Horizontally from an openable window, door, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation:	
	• *Appliances* up to 150 MJ/h input *	300
	• *Appliances* over 150 MJ/h input up to 200 MJ/h input *	300
	• *Appliances* over 200 MJ/h input up to 250 MJ/h input *	500
	• *Appliances* over 250 MJ/h input *	1500
	• All fan-assisted *flue appliances* , in the direction of discharge	1500
k	From a mechanical air inlet, including a spa blower	1000
n	Vertically below an openable window, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation:	
	• Space heaters up to 50 MJ/h input	150
	• Other *appliances* up to 50 MJ/h input	500
	• *Appliances* over 50 MJ/h input and up to 150 MJ/h input	1000
	• *Appliances* over 150 MJ/h input	1500

* - unless *appliance* is *certified* for closer installation

† - Prohibited area below electricity meter or fuse box extends to ground level.

NOTES:

1 Where dimensions *c, j* or *k* cannot be achieved an equivalent horizontal distance measured diagonally from the nearest discharge point of the terminal to the opening may be deemed by the Technical Regulator to comply.

2 See Clause 6.9.4 for restrictions on a *flue terminal* under a covered area.

3 See Figure J3 for clearances required from a *flue terminal* to an LP Gas *cylinder.* A *flue terminal* is considered to be a source of ignition.

4 For *appliance* **s** not addressed above acceptance should be obtained from the Technical Regulator.

EXTRACT OF FIGURE 6.2 (in-part)

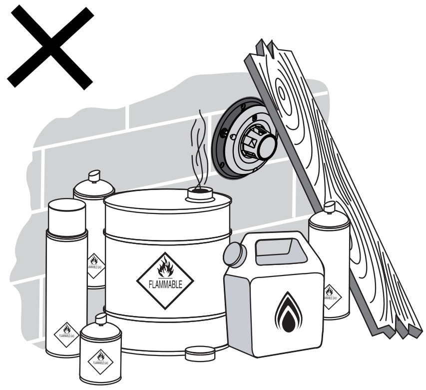
Horizontal terminal clearances (Extract AS/NZS 5601 Fig. 6.2)

IMPORTANT

AS/NZS 5601 was current at the time of printing this manual, but may have been superseded. It is the installers responsibility to ensure that the current version of this standard is used.

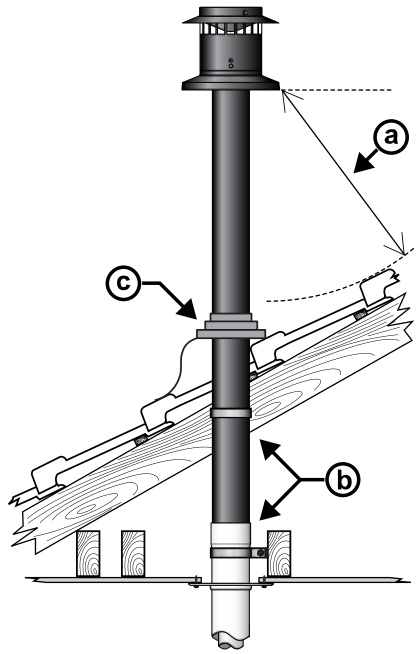
WARNING

The flue terminal should be positioned away from flammable materials.



IMPORTANT

Refer to the 'Energysaver Space Heater Co-Axial Flue System Installation Manual' for full details



(a) Minimum clearance 500 mm to nearest part of roof.

(b) Minimum clearance 25mm to combustible materials.

(c) Decktite or lead collar flashing.

'Vertical Terminal clearances (Extract from the 'Energysaver Space Heater Co-Axial Flue System Installation Manual')

HEATER INSTALLATION

1. UNPACKING THE APPLIANCE

The heater is supplied in one carton containing; Heater, Standard Rear Cover Set and Bolt Pack (refer to the “CARTON CONTENTS / ITEM CHECKLIST” on page 4 for a full list of the items packed with each heater model).

Remove all packaging materials and check for damage. If any damage is evident **DO NOT** install or operate this appliance and contact your supplier for advice.

Before installing the heater, check it is labelled for the correct gas type, (refer to the data label at the rear of the heater). Refer to the local gas authority for confirmation of gas type if you are in doubt.

NOTE

The heater does not come supplied with flue components. These are purchased separately and ONLY Rinnai Energysaver Co-Axial Flue System Flue components can be used with this appliance.

2. CONNECTING THE APPLIANCE TO THE CONSUMER GAS PIPE

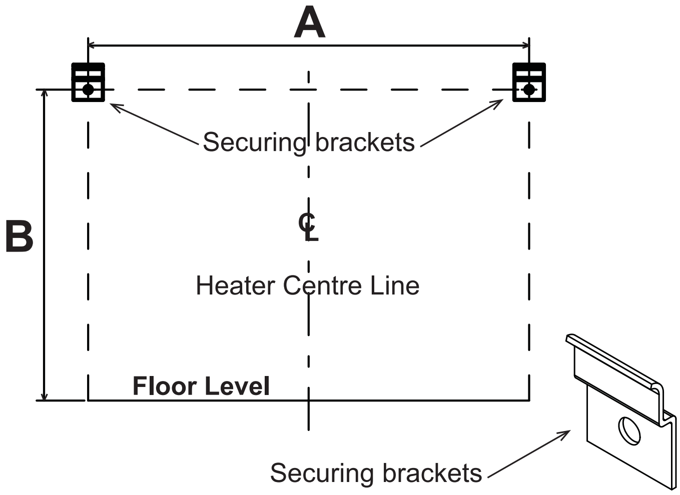
WARNING

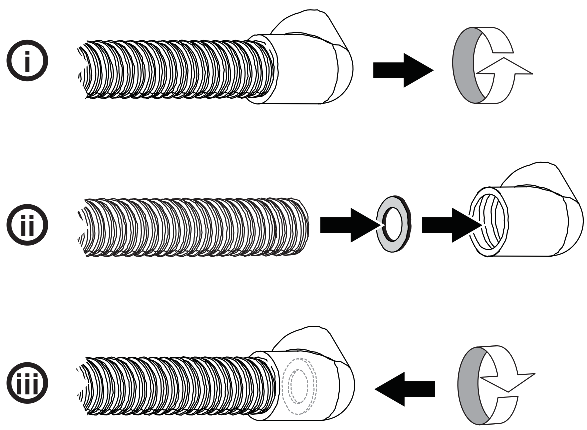
240 VOLTS RISK OF ELECTRICAL SHOCK!

ISOLATE THE ELECTRICITY SUPPLY FROM THE APPLIANCE BEFORE CONTINUING.

1. Remove the plastic protection cap from the threaded gas inlet located at the rear of the appliance.
2. Position the appliance gas inlet in line with gas supply from wall.
3. Attach gas supply pipe to the appliance gas inlet and tighten - finger tight. Appliance has R1/2 fitting.
4. On the wall behind the appliance, at a level of about midway of the heaters height, mark the vertical centre line of the heater, marked as “℄” (centre line) in accordance the table and the diagram below.
5. Mark the flue penetration position in accordance with ‘Energysaver Space Heater Co-Axial Flue System Installation’ manual.
6. Undo the gas connection, remove the heater.
7. Cut flue penetration(s)
8. Mark out the securing bracket screw holes in accordance with the table and the diagram right, using the appliance’s centre line as reference.
9. Attach the two securing brackets supplied to the wall using the two 8g x 30mm screws supplied, or suitable equivalent refer to diagram A.
10. For RHFE-309FT and RHFE-559FT - direct flue kit `ESDFK´ installations **ONLY** install air intake baffle ring as follows:
    i. Unscrew the air intake elbow from the air intake hose (left handed thread, clockwise to undo).
    ii. Insert the air intake baffle ring into the appliance end of the air intake elbow.
    iii. Screw the air intake hose back into the air intake elbow (left handed thread, anti-clockwise to tighten), ensuring that the air intake baffle ring is seated flush against the end of the air intake hose.

Model	A	B
RHFE-309FT	250 mm	624 mm
RHFE-559FT	350 mm	537 mm
RHFE-561FT	280 mm	688 mm
RHFE-1005FT	875 mm	622 mm





11. Install flue system in accordance with 'Energysaver Space Heater Co-Axial Flue System Installation manual' which is provided with the flue kit.
12. Return the heater to the final position.
13. Connect flue in accordance with 'Energysaver Space Heater, Co-Axial Flue System Installation Manual'.
14. Connect gas supply line and fully tighten connection.

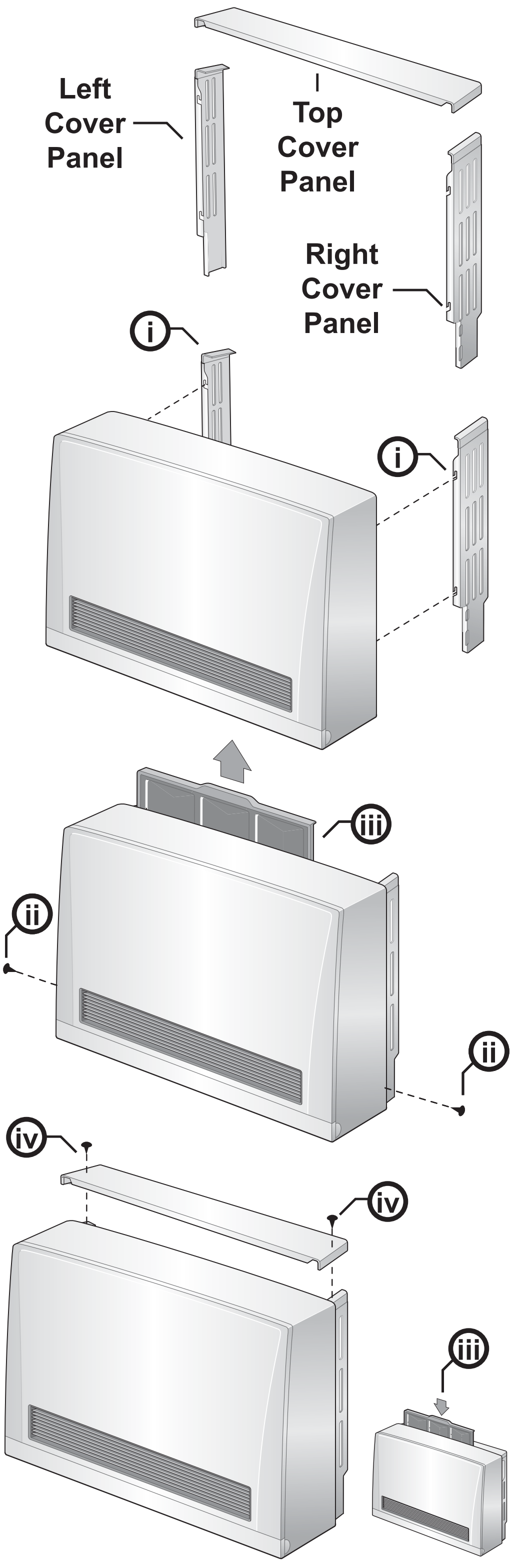
CAUTION **Use a soapy solution to test all gas connections. If a leak is present bubbles will form at the leak point. When finished remove any residue with a rag. Prevent any of the soapy solution from coming in contact with electrical components.** WARNING

3. RHFE-309FT / 559FT / 561FT - BACK PANEL INSTALLATION

The back panel is **NOT** an optional component and **MUST BE** fitted to ensure the correct and safe operation of the appliance while also providing concealment and protection of the flue and gas connections.

1. Fit left and right cover panels to the rear of the appliance by clipping the panels onto the location tabs (i) then fastening into position using the two 6g x 8mm pan head screws (ii) supplied.

   These screws locate into pre-drilled and formed recesses at the bottom edge of the panels.
2. Remove the Fan Filter (iii).
3. Carefully fit the top cover panel ensuring the rear fold locates neatly between the two securing brackets and wall.
4. Secure the top cover panel with two 6g x 8mm pan head screws supplied (iv).
5. Replace the Fan Filter (iii).



CAUTION **Air hose and heater exhaust connections at the Energysaver heater MUST be made and checked in accordance with these instructions.**

Improper connections may result in dangerous situations, for example, the dispersion of combustion products in the space being heated.

NOTE **NOT INTENDED FOR FIREPLACE INSERT.**

WARNING **Rear cover panels MUST BE fitted to ensure correct and safe operation of the appliance.**

Failure to fit the rear cover panels will result in inefficient and dangerous operation of the appliance and void the warranty.

3. RHFE-1005FT - BACK PANEL INSTALLATION

The back panel is **NOT** an optional component and **MUST BE** fitted to ensure the correct and safe operation of the appliance while also providing concealment and protection of the flue and gas connections.

1. Replace the two short panel brackets (ia) from the back the appliance with the two long panel brackets (i) supplied with the back saver kit.
2. Fit left and right cover panels to the rear of the appliance by fastening into position using the four 6g x 8mm pan head screws (ii) supplied.

   These screws locate into pre-drilled and formed recesses of the panels, brackets and appliance.
3. Remove the Fan Filter (iii).
4. Carefully fit the top cover panel ensuring the rear fold locates neatly between the two securing brackets and wall.
5. Secure the top cover panel with three 6g x 8mm pan head screws supplied (iv).
6. Replace the Fan Filter (iii).

CAUTION

Air hose and heater exhaust connections at the Energysaver heater MUST be made and checked in accordance with these instructions.

Improper connections may result in dangerous situations, for example, the dispersion of combustion products in the space being heated.

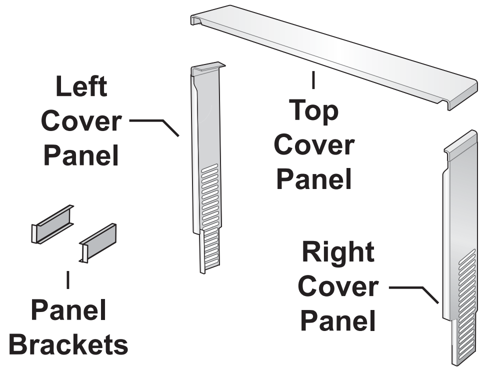
NOTE

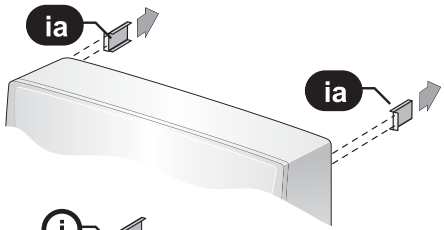
NOT INTENDED FOR FIREPLACE INSERT.

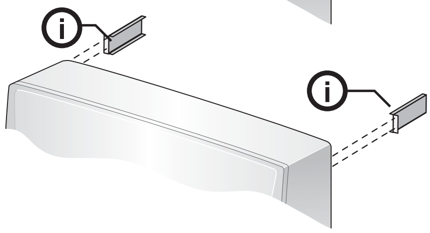
WARNING

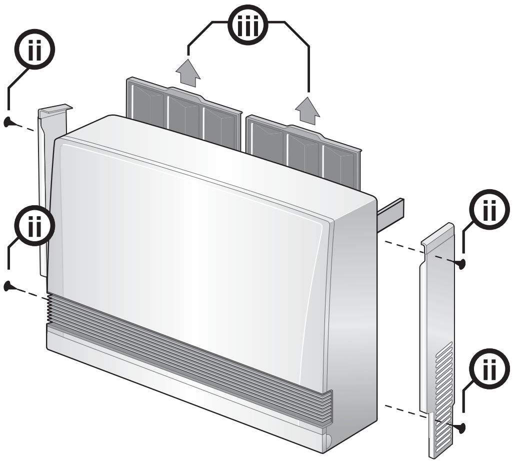
Rear cover panels MUST BE fitted to ensure correct and safe operation of the appliance.

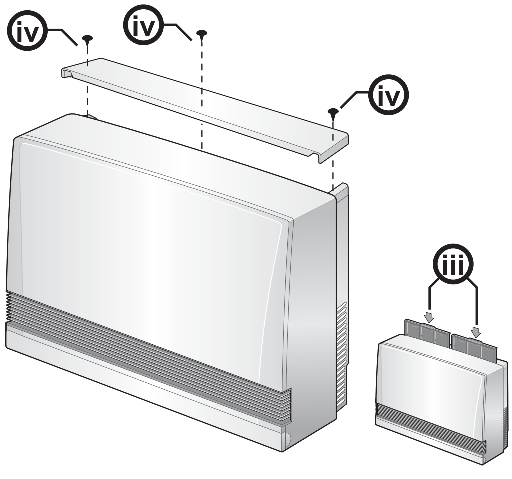
Failure to fit the rear cover panels will result in inefficient and dangerous operation of the appliance and void the warranty.











4. COMMISSIONING

For Commissioning Instructions, refer to the Commissioning sheet attached behind the front panel of this appliance.

5. INSTALLATION AND COMMISSIONING CHECKLIST

1. Complete **BOTH** the "INSTALLATION RECORD" (Step 6.) and "FINAL CHECKLIST" (Step 7.) below.
2. Instruct customer on the operation of the Energysaver.
3. Ensure the customer understands the content of this manual.

NOTE

Advise the customer that during the initial burning in period of approximately 2 hours, some vapour and smell may be emitted from the heater. This is normal operation for a new heater.

During this period the heater should be operated on 'High' and the space being heated should be well ventilated.

WARNING

The louvre grille and rear cover fitted to this appliance reduce the risk of fire and injury, no part of it should be permanently removed.

Ensure the Customer understands that:

No part of this appliance should be permanently removed.

Paper or other material must not be forced into the louvres of this appliance.

Young children and the infirm should be supervised at all times while in the vicinity of this appliance while it is in operation or able to be turned on.

6. INSTALLATION RECORD

Installers / Gas Fitters Details

Installers Name: ______________________

Company Name: ______________________

Company Address: ______________________

____

____

Company Contact Details

Telephone: ______________________

Mobile Phone: ______________________

Compliance Details

Certificate of Compliance / Certification Number: ______________________

Authorised Persons - Licence Number: ______________________

Installers Signature: ______________________

Installation Date: ______________________

Appliance Details

Model Number: ______________________

Serial Number: ______________________

Installation Address: ______________________

____

____

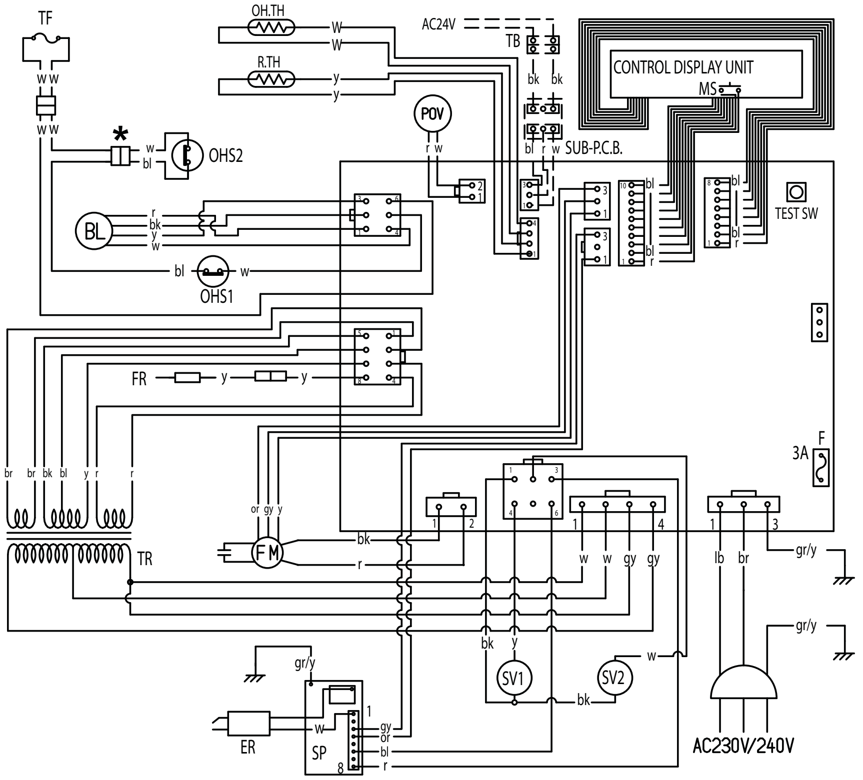
7. FINAL CHECKLIST

(To be completed by certified Gas Installer)	Yes	/ *No
1. Is the appliance positioned in a suitable location (clearances, combustible clearances mantels and surrounds etc)?	☐	☐
2. Have all packaging / protective materials been removed prior to operation?	☐	☐
3. The Appliance Test Point (Burner) Pressure is correct for it's particular installation / flue configuration and adjusted if necessary.	☐	☐
4. Have you used only Rinnai Energysaver® flueing components?	☐	☐
5. That the air inlet hose and flue connections are sound?	☐	☐
6. That the Appliance is secured to the wall as per Installation manual?	☐	☐
7. Gas Supply pipe is purged of foreign matter before connection?	☐	☐
8. That gas connections are correct?	☐	☐
9. Have you turned on the power?	☐	☐
10. Is the appliance inlet pressure correct with all other resident gas appliances operating?	☐	☐
11. Have you shown the customer how to operate the heater and informed them of the safety requirements?	☐	☐
12. Where applicable, have you connected the condensation drain hose in accordance with the Installation manual?	☐	☐
13. Have you checked the flue clearances and installation as per the Installation manual and as per AS/NZS 5601?	☐	☐
14. Have you filled out the "Installation Record" found at the front of this manual?	☐	☐
15. Is the end-user fully aware of the servicing schedule?	☐	☐
16. Have you completed the "Energysaver® Commissioning Check List" attached to the front of the Appliance?	☐	☐
17. Have you left this Operation and Installation manual with the customer?	☐	☐

***If you have answered NO to any of the above, you must correct before appliance hand-over to the customer.**

WIRING DIAGRAMS

RHFE-309FT / RHFE-559FT

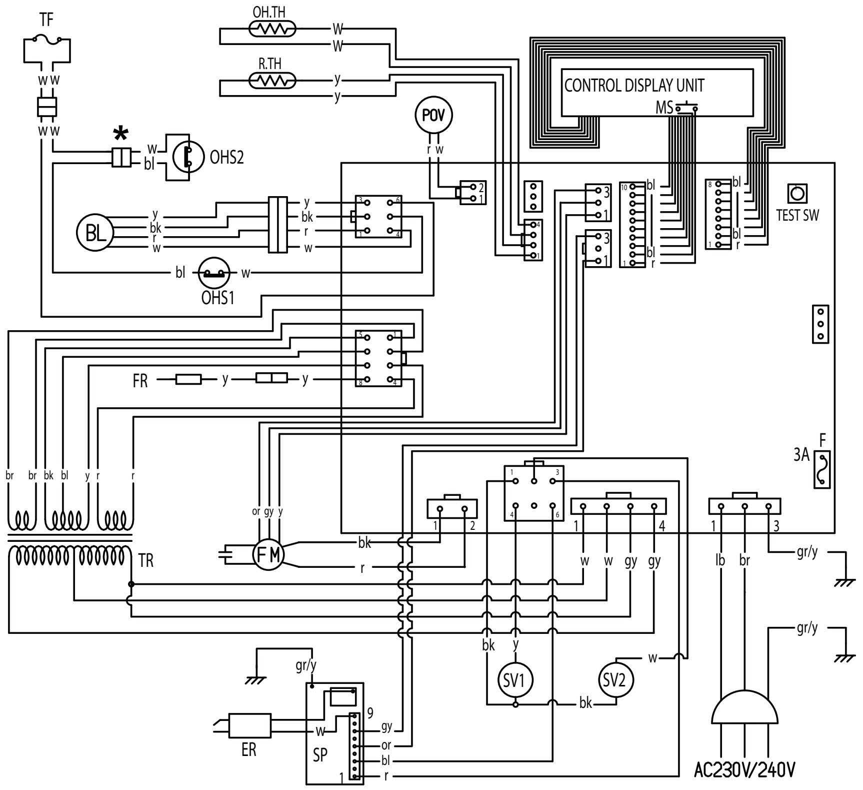


MARK	PARTS NAME
MS	MAIN SWITCH
R.TH	THERMISTOR
TF	THERMAL FUSE
F	FUSE
ER	ELECTRODE
POV	MODULATING SOLENOID VALVE
TR	TRANSFORMER
TB	TERMINAL BLOCK
OH.TH	OVER HEAT THERMISTOR
OHS1,2	OVER HEAT SWITCH1,2
FM	CONVECTION FAN MOTOR
SP	SPARKER
SV1,2	MAIN SOLENOID VALVE 1,2
BL	COMBUSTION FAN MOTOR
FR	FLAME ROD

CODE	COLOR	CODE	COLOR
bk	black	w	white
bl	blue	y	yellow
lb	light blue	gy	gray
gr/y	green/yellow	or	orange
r	red	br	brown

* Note: This connector applicable to RHFE-559FT and RHFE-561FT ONLY!

RHFE-561FT

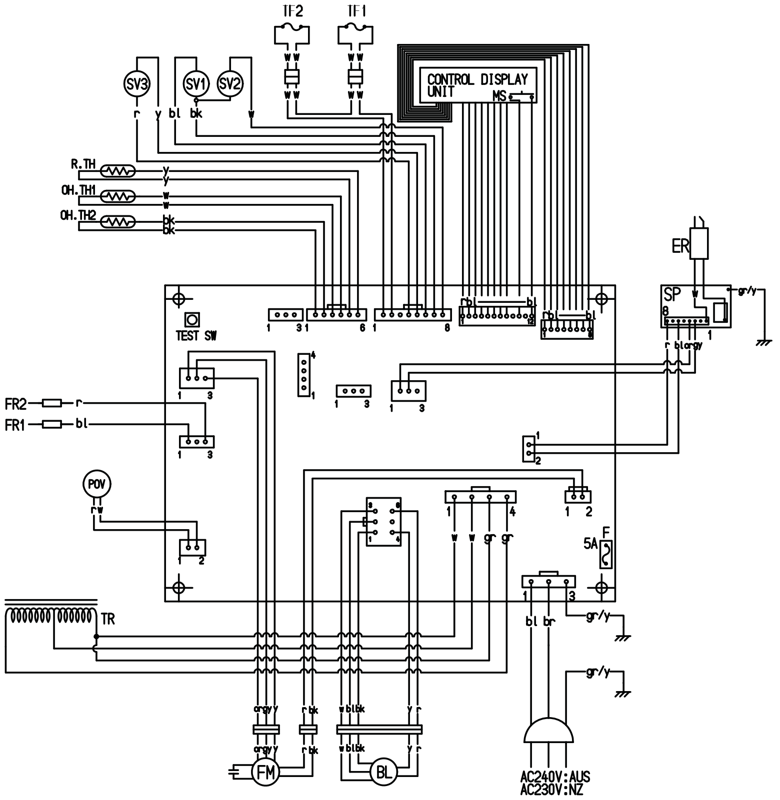


MARK	PARTS NAME
MS	MAIN SWITCH
R.TH	THERMISTOR
TF	THERMAL FUSE
F	FUSE
ER	ELECTRODE
POV	MODULATING SOLENOID VALVE
TR	TRANSFORMER
TB	TERMINAL BLOCK
OH.TH	OVER HEAT THERMISTOR
OHS1,2	OVER HEAT SWITCH1,2
FM	CONVECTION FAN MOTOR
SP	SPARKER
SV1,2	MAIN SOLENOID VALVE 1,2
BL	COMBUSTION FAN MOTOR
FR	FLAME ROD

CODE	COLOR	CODE	COLOR
bk	black	w	white
bl	blue	y	yellow
lb	light blue	gy	gray
gr/y	green/yellow	or	orange
r	red	br	brown

* Note: This connector applicable to RHFE-559FT and RHFE-561FT ONLY!

RHFE-1005FT



MARK	PARTS NAME
MS	MAIN SWITCH
R.TH	THERMISTOR
TF1,2	THERMAL FUSE 1,2
F	FUSE
ER	ELECTRODE
POV	MODULATING SOLENOID VALVE
TR	TRANSFORMER
OH.TH1,2	OVER HEAT THERMISTOR 1,2
FM	CONVECTION FAN MOTOR
SP	SPARKER
SV1,2	MAIN SOLENOID VALVE 1,2
SV3	SOLENOID VALVE 3
BL	COMBUSTION FAN MOTOR
FR1,2	FLAME ROD 1,2

CODE	COLOR	CODE	COLOR
bk	black	w	white
bl	blue	y	yellow
gr/y	green/yellow	gy	gray
r	red	or	orange
gr	green	br	brown

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Rinnai

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Braeside, Victoria 3195

Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires service, please call our National Help Line. Rinnai recommends that this appliance be serviced every 2 years.

Internet: www.rinnai.com.au E-mail: enquiry@rinnai.com.au

National Help Line
Tel: 1300 555 545* Fax: 1300 555 655*
**Cost of a local call higher from mobile or public phones.*

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